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DISEASE NOTES

First Report of *Sclerotinia sclerotiorum* Causing Postharvest Sclerotinia Rot on Highbush Blueberry in Europe

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ABSTRACT

Northern highbush blueberry (*Vaccinium corymbosum* L.) is widely cultivated in different European countries. Its distribution in Italy is steadily growing in northern and central regions, but it is mainly limited by the requirement of acidic soil. Blueberries are available on the market from June to September and they have a shelf life of 21 days. During June 2012, a postharvest fruit rot was observed on highbush blueberry 'Duke' cultivated in Saluzzo (44°38′50.64″ N; 07°29′14″ N), Piedmont region, Italy, and stored 7 days at 2°C after harvesting. Infected fruit showed brown, soft, rotted lesions, covered with grayish white mycelium under high humidity. These symptoms were similar to Sclerotinia rot caused by *Sclerotinia sclerotiorum* (Libert) de Bary in Japan (Umemoto et al. 2007), or mummy berry disease caused by *Monilinia vaccinii-corymbosi* in United States and Europe (Hildebrand et al. 1995). Tissues were excised from the margin between the healthy and diseased tissues, cultured on potato dextrose agar (PDA, Merck) amended with 25 mg streptomycin per liter, and incubated at 24°C (16 h of light and 8 h of darkness). Fungal colonies initially appeared white with a fairly flat sheet of aerial mycelia and after 7 days produced black sclerotia measuring 3 to 8 mm in diameter on the colony surface mainly near the edge of the culture plates. Typical microconidia of the genus *Monilia* (syn. *Monilinia*) were not observed (Hildebrand et al. 1995). The pathogen was identified as *Sclerotinia sclerotiorum* based on the size of sclerotia and the DNA sequences of the ribosomal region ITS1-5.8S-ITS2, obtained with PCR amplification with primers ITS1 and ITS4. A BLAST search of one sequence in GenBank showed 99% sequence coverage and 99% (487/489 bp) similarity to two ribosomal sequences of *S. sclerotiorum* isolated from *V. corymbosum* in Japan (Umemoto et al. 2007). The sequence (490 bp) was deposited in GenBank with Accession No. JX442064. *S. sclerotiorum* was isolated from 6% of the berries showing postharvest rots. Pathogenicity was tested on 20 highbush blueberries cv 'Duke'. Mycelial blocks (9 mm^2) were placed on artificial wounds (1-mm diameter, 1-mm depth) generated with a needle on the equatorial region of the berries and incubated at 20°C with 12 h of light. Control berries were wounded and a sterile agar block was placed

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on the wounds. Seven days after inoculation, the rot symptoms occurred and *S. sclerotiorum* was reisolated from inoculated fruit on PDA and identified based on morphology and rDNA sequencing. Control fruits were symptomless. Previously, *S. sclerotiorum* was reported causing shoot blight, flower cluster rots, or berry rots on highbush blueberry in Canada, New Zealand, Japan (Umemoto et al. 2007), and Argentina (Perez et al. 2011). To our knowledge, this is the first report of *S. sclerotiorum* causing a postharvest fruit rot of blueberry in Europe.

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